

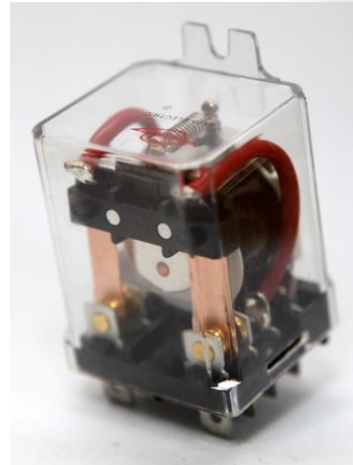


# BTA12 SERIES

## BETA ELECTRIC INDUSTRY CO., LTD. RELAYS & COMPONENTS

### FEATURES

- Plug-in relay
- Quick connect receptacles or direct soldering. PCB terminals are also acceptable.
- Large capacity 30A contact rating.
- Optional blowout magnet: high voltage dc switching.
- Wide spacing between stationary contact terminals: clearance for fully booted quick connect terminals.
- 2Millimeter contact gaps: 8millimeter creep age and clearance to meet in terminal requirements.
- Improved dielectric strength between contacts: 4000vrms dielectric between mutually insulated conductive elements and frame.
- L.E.D. status lamp: shows coil "ON" or "OFF" status.



### LINEUP

■ STANDARD COIL POLARITY

Type	Contact form	Pull-in terminal/dust cover		
		Standard	With LED	With LED, push button
Class B coil insulation	DPDT	BTA12-2C-S-C	BTA12-2C-S-CL	BTA12-2C-S-CLM
	SPST-NO-DM	BTA12-1X-S-C	BTA12-1X-S-CL	BTA12-1X-S-CLM
	SPST-NC-DB	BTA12-1Y-S-C	BTA12-1Y-S-CL	BTA12-1Y-S-CLM
	SPDT-DM-DB	BTA12-1Z-S-C	BTA12-1Z-S-CL	BTA12-1Z-S-CLM
	DPST-NO	BTA12-2A-S-C	BTA12-2A-S-CL	BTA12-2A-S-CLM
Class F coil insulation	DPDT	BTA12-2C-S-C-F	BTA12-2C-S-CL-F	BTA12-2C-S-CLM-F
	SPST-NO-DM	BTA12-1X-S-C-F	BTA12-1X-S-CL-F	BTA12-1X-S-CLM-F
	SPST-NC-DB	BTA12-1Y-S-C-F	BTA12-1Y-S-CL-F	BTA12-1Y-S-CLM-F
	SPDT-DM-DB	BTA12-1Z-S-C-F	BTA12-1Z-S-CL-F	BTA12-1Z-S-CLM-F
	DPST-NO	BTA12-2A-S-C-F	BTA12-2A-S-CL-F	BTA12-2A-S-CLM-F

- Notes:
1. The insulated temperature of Class B coil insulation is 130°C. The insulated temperature of Class F coil insulation is 155°C.
  2. Add BTA12 suffix letter B represents the Blow-out feature, ex. BTA12B-2C-S-C
  3. The standard contact material AgCdO can be replaced by AgSnO2 gold flashed by adding a letter B in its product name, ex. BTA12-2C-B-S-C.
  4. Terminal has other options, such as S, S1, S2, P1, P2, for example: The letter "S2" in the BTA15-2C-S2-C represents the S2 type terminal, its dimension is 4.8X0.5. (refer to catalog for Terminal Style below)
  5. Standard cover can be replaced by changing the code in product name, ex. BTA12-2C-S2-C1 for side flange cover. (refer to catalog for cover Style below)



## BETA ELECTRIC INDUSTRY CO., LTD. RELAYS & COMPONENTS SPECIFICATIONS

### ■ COIL RATINGS

Rated voltage		Rated current		Coil resistance ( $\Omega$ )	Must operate voltage	Must release voltage	Max. voltage	Power consumption (approx.)
		50 Hz	60 Hz		% of rated voltage			
AC	6 V*	958	807	3.1	85	30	110	3.4VA
	12 V	331	274	13.5				
	24 V	169.5	141.2	54				
	120V	37.8	31.2	1270				
	240V	14.1	11.2	5400				
DC	6 V*	282		18.7	80	10	110	2.0W
	12 V	160		51				
	24 V	106		230				
	48V*	46.2		1050				
	110 V	17.6		6300				

#### Note:

1. The coil resistance is measured at a coil temperature of 25°C and 35%-70% of humidity.
2. The operating parameter is measured at a coil temperature of 25°C indicated in the percentage of the rated voltages.
3. The coil rated current is measured as the real current consumption under the rated voltages.

### ■ CONTACT RATINGS

Item	BTA12
Resistive load (Cos $\Phi$ =1)	30A 300VAC 30A 28VDC
Motor	1HP 120VAC 2HP 208-600VAC
Carry current	30A
Max. switching voltage	300VAC 28VDC
Max. switching current	30A
Max. switching power	9000VA 840W

## BETA ELECTRIC INDUSTRY CO., LTD. RELAYS & COMPONENTS

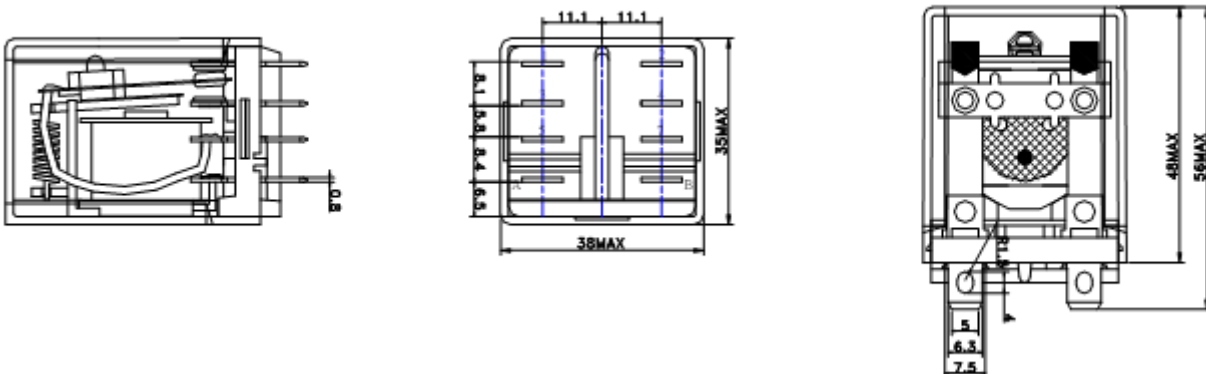
### CHARACTERISTICS

Item	All Relays
Contact resistance	50mΩ Maximum.
Operate time	25mS Maximum.
Release time	20mS Maximum.
Max. operating frequency	Mechanical: 18,000 operations/hr Electrical: 1,800 operations/hr (under rated load)
Insulation resistance	1000MΩ Minimum. At 500VDC.
Dielectric strength	Between open contact: 2500 VAC for 1 minute.
	Between contact and coil: 2500VAC for 1 minute.
	Between live parts and ground: 4000VAC for 1 minute.
Vibration resistance	Destruction: 10 to 55 to 10 Hz, 0.5 mm single amplitude (1.0 mm double amplitude) Malfunction: 10 to 55 to 10 Hz, 0.5 mm single amplitude (1.0 mm double amplitude)
Shock resistance	Destruction: 1,000 m/s <sup>2</sup> (approx. 100G) Malfunction: 1,00 m/s <sup>2</sup> (approx. 10G)
Endurance	Mechanical life: 10,000,000 operations. Electrical life: 100,000 operations.
Ambient temperature	-30°C to +50°C (AC); -30°C to +65°C (DC)
Ambient humidity	5% to 85%
Weight	85g

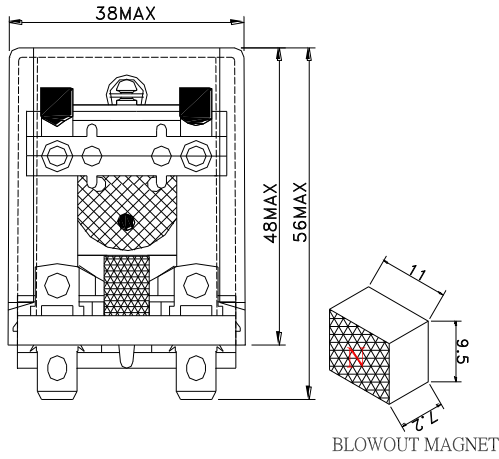
## DIMENSION

### Relays with Solder/Plug-in Terminals

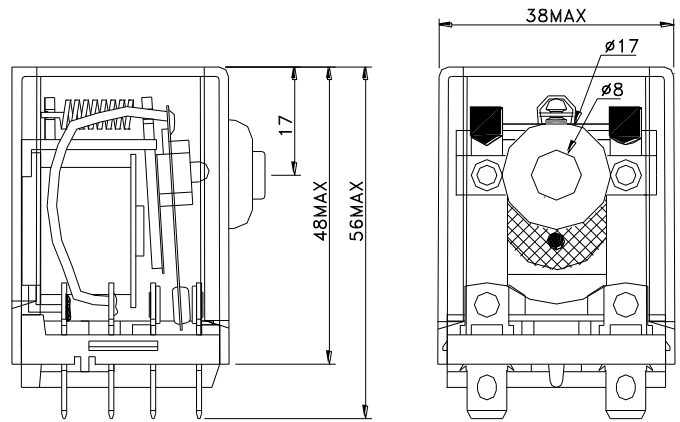
#### Standard Type



**With blowout magnet: BTA12B**

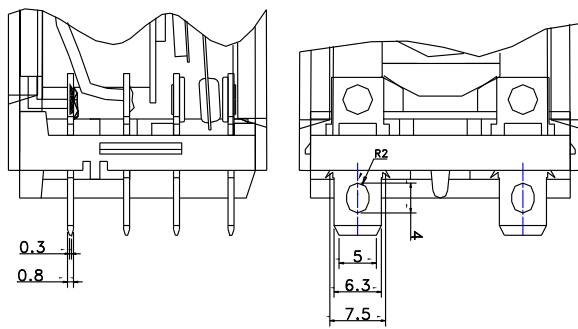


**With push button: Code M**

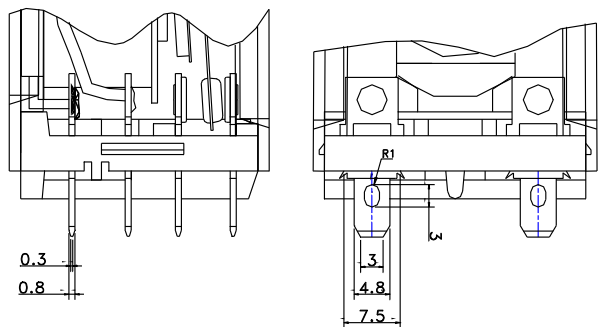


## Terminal style

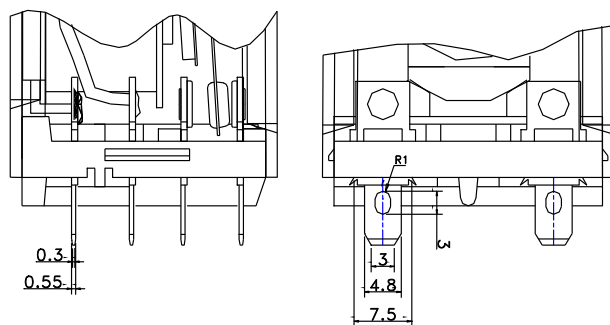
**Standard terminal: code S**



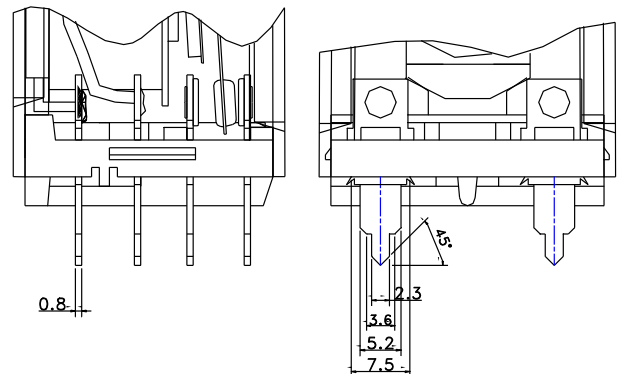
**Code: S1**



**Code: S2**

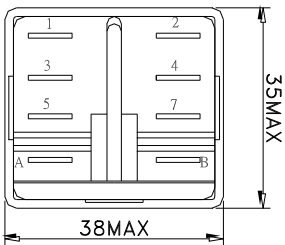
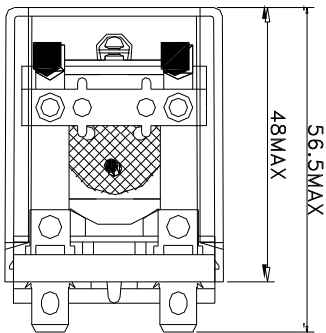


**Code: P1**

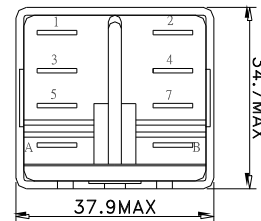
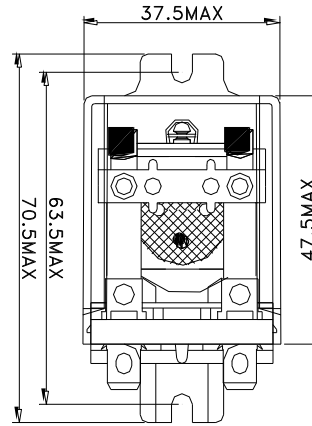


## Cover style

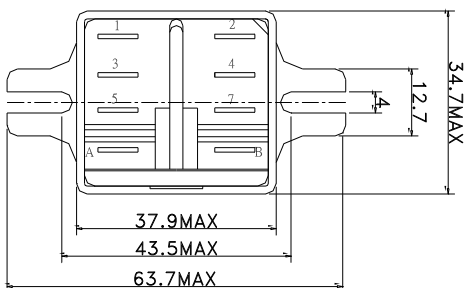
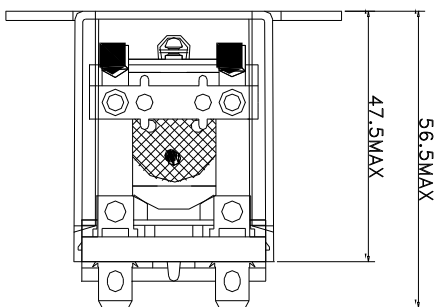
**Plain cover: code C**



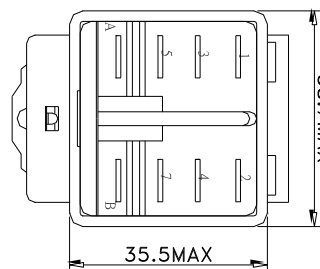
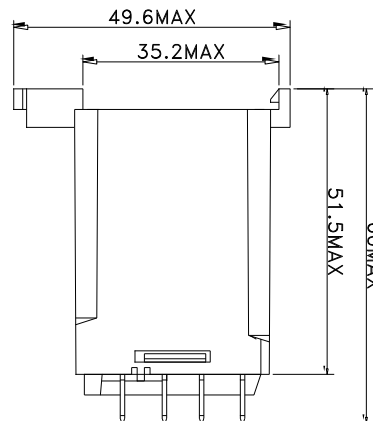
**Side flange cover: Code C1**



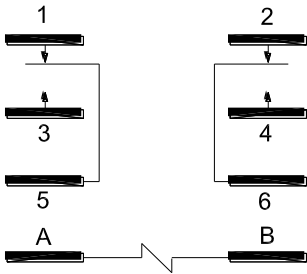
**Top flange cover: Code C3**



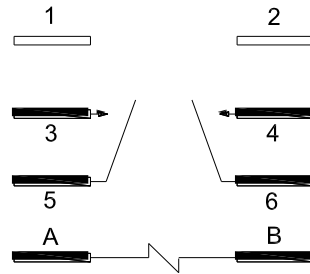
**Din rail mount: Code C4**



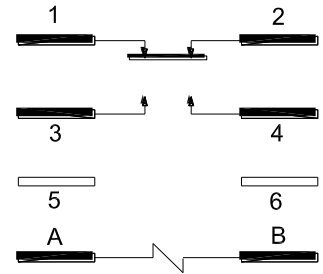
## Wiring diagram



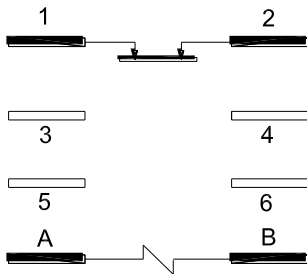
DPDT



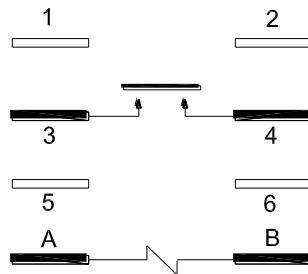
DPST-NO



SPDT-NC-NO



SPST-NC-DB



SPST-NO-DM



## HOW TO ORDER

